

Dear colleague,

Please find herewith the final announcement for an IAA/ESA workshop on "The Next Steps in Exploring Deep Space" to be held at ESTEC on 22-23 September 2003. We would be pleased if you could participate.

This workshop will build up on an ongoing IAA cosmic study " Next Steps in Exploring Deep Space", in order to provide a vision for the scientific exploration of space by humans in the first half of the 21st Century. The purpose is to provide a roadmap for a systematic, logical, and science-driven plan for exploration of the Solar System and unlocking the mysteries of the Universe-a program that builds gradually and systematically to establish a permanent presence at each outpost along the way and that builds the communications, transportation and other logistical infrastructure as it proceeds. The workshop will elaborate a set of long-term scientific goals for space exploration that provide the context for carrying out scientific investigations at specific destinations in space. The workshop will also consider the scientific priorities established by various communities and space agencies over the world. Possible architectures will be discussed for the space flight infrastructure required to pursue these science goals at the specified destinations, including examination of the relevant policy, international aspects and public engagement in this enterprise. Please find attached the workshop second announcement and programme of invited speakers. There are still possibilities for contributed talks during the splinter sessions, or for poster presentations. The final programme with all contributions will be finalised on Sept 1st. Note that the IAA/ESA workshop is followed by the 5th IAA conference on Low-cost Planetary Missions at ESTEC (24-26 Sept 03) and by the 54th International Congress in Bremen (29 Sept- 3 Oct 03).

Best regards,

The workshop organisers:

Wesley T. Huntress, Jr., (IAA), Director, Geophysical Laboratory, Carnegie Institution of Washington
Bernard H. Foing, (ESA), Chief Scientist, ESA Research and Scientific Support Dept., ESTEC/SCI-SR

Additional information, conference and hotel registration forms are available on
<http://www.estec.esa.nl/conferences/03C39/index.html>

Please send your conference and hotel registration forms to confburo@esa.int before 20 August (with copy to Bernard.Foing@esa.int and Samira.Ihaddadene@esa.int):

If you intend to participate an oral talk or poster please fill and send also the following message:

Last Name: First name:

Institution:

Address:

I wish to present:

an oral talk, title:

a poster, title:

I wish to contribute to the splinter session on: Moon, Mars, NEOs, large telescopes

The Next Steps in Exploring Deep Space
IAA/ESA Workshop, ESTEC 22-23 September 2003
Final Announcement

International Academy of Astronautics (IAA)
European Space Agency (ESA)

Background

This workshop will build up on an ongoing IAA cosmic study " Next Steps in Exploring Deep Space", in order to provide a vision for the scientific exploration of space by humans in the first half of the 21st Century. The purpose is to provide a roadmap for a systematic, logical, and science-driven plan for exploration of the Solar System and unlocking the mysteries of the Universe—a program that builds gradually and systematically to establish a permanent presence at each outpost along the way and that builds the communications, transportation and other logistical infrastructure as it proceeds. The workshop will elaborate a set of long-term scientific goals for space exploration that provide the context for carrying out scientific investigations at specific destinations in space. The workshop will also consider the scientific priorities established by various communities and space agencies over the world.

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Main Organisers

Wesley T. Huntress, Jr., (IAA), Director, Geophysical Laboratory, Carnegie Institution of Washington
Bernard H. Foing, (ESA), Chief Scientist, ESA Research and Scientific Support Dept., ESTEC/SCI-S

Agenda and invited speakers

Day 1: Monday 22 Sept

9:00 Welcome and Introduction

B.Foing/W.Huntress

Session I: The Future of Astronomy & Fundamental Physics from Space

Origin and Evolution of the Universe

J.L. Puget

Frontiers in High Energy and Fundamental Physics

E. van den Heuvel

Search for Earth-Like and Living Exo-Planets

A. Labeyrie

Astrobiology and conditions for life

P. Ehrenfreund

Session II: The Future of Solar System Exploration Science

The Moon

B. Foing

Near Earth Objects and Small Bodies

P. Michel

Mars

R. Pellinen

The Space Environment

M. Blanc

Session III: Technology and Human Aspects

Future Space Telescope System Concepts

H. Thronson

Advanced robotics and artificial intelligence

Planetary resource utilization,

I. Casanova

Life sciences in space and living on another planet

G. Horneck

Human space flight activities supporting deep space exploration

Session IV: Contributed Talks and Discussions in Splinter Groups
(Charge to the groups: Based on science, develop an exploration strategy for both robots & humans; where do humans provide significant benefit)

Group 1:	Moon	Chair: TBC
Group 2:	NEOs	Chair: TBC
Group 3:	Mars	Chair: R.Pellinen J.Garvin
Mars US perspective on next decade and beyond		Chair: J.P. Swings
Group 4:	Space Telescopes	

Day 2: Tuesday 23 Sept

Session V: Rationale for exploration, models for the future
Policy and International Cooperation Considerations
Space exploration & Society: How can we make the next steps?

G. Naja
R.M. Bonnet

Session VI: Architectures for the Next Steps in Deep Space
Presentations with Discussion:

ESA Cosmic Vision,
Human space flight to Earth orbit and beyond
Aurora

B. Foing
J. Feustel-Buechl
F.Ongaro

NASA NEXT

France (R. Bonneville), Italy (S. di Pippo), Canada (A.Berinstain),
Russia, Japan, China, India,

IAA Cosmic study on "Next Steps in Exploring Deep Space"

Huntress/Stetson/Farqhar

Session VII: Wrap-up Splinter Groups' Reports & Discussion
Summary discussion & Closing remarks: Panels Chairs, B.Foing, W. Huntress, D. Southwood

18:00 End of Workshop

Notification of Interest and Submission of abstracts

The programme will consist of invited lectures, and active splinter group discussions, as well as contributed posters and short oral presentations. Please send your notification of interest and title of your proposed contribution to the workshop secretariat and to confburo@esa.int

Planning of events

20 August 2003	Latest hotel registration
20 August 2003	Final registration date
1 Sept 2003	Final Programme
22-23 Sept 2003	IAA/ESA "Next steps in Exploring Deep Space"
24-26 Sept 2003	Fifth IAA International Conference on Low-Cost Planetary Missions

Logistics, registration and hotel reservation are supported by ESTEC Conference Bureau
Registration forms should be sent to confburo@esa.int.

Local organizing committee: (secretariat) Tel. 31 71 565 3574, Fax 31 71 565 4697

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